

**Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-83 (Cancelled)

84. (Amended) A continuous carbon fiber comprising single-wall carbon nanotubes in substantially parallel orientation, wherein a substantial portion of the single-wall carbon nanotubes have a homogeneous characteristic selected from the group consisting of lengths, diameters, helicities and combinations thereof.

85. (Cancelled)

86. (Previously Presented) A fiber of claim 84 having a composite structure comprising:

- a) a first plurality of single-wall carbon nanotubes in a first region having a first homogeneous characteristic, wherein the first homogeneous characteristic is selected from the group consisting of lengths, diameters, helicities and combinations thereof;
- b) a second plurality of single-wall carbon nanotubes in a second region having a second homogeneous characteristic, wherein the second homogeneous characteristic is selected from the group consisting of lengths, diameters, helicities and combinations thereof; and
- c) wherein, the first homogeneous characteristic is different from the second homogeneous characteristic.

87. (Previously Presented) A composite fiber comprising a plurality of continuous carbon fibers, wherein each of the continuous carbon fibers comprise single-wall carbon nanotubes in substantially parallel orientation.

88. (Previously Presented) The composite fiber of claim 87 wherein the composite fiber is a cable-like structure.

89. (Previously Presented) The composite fiber of claim 87 further comprising:

- a) a central core comprising metallic single-wall carbon nanotubes; and
- b) non-metallic single-wall carbon nanotubes, wherein the non-metallic single-wall carbon nanotubes surround the central core.

90. (Previously Presented) The composite fiber of claim 87 wherein at least some of the single-wall carbon nanotubes in at least a portion of the composite fiber are not parallel.

91. (Previously Presented) A molecular array comprising single-wall carbon nanotubes aggregated in an orientation for growing a continuous carbon fiber.

92. (Previously Presented) The molecular array of claim 91 wherein the orientation of the aggregated single-wall carbon nanotubes is substantially parallel.

93. (Previously Presented) The molecular array of claim 92 further comprising a segment of an initial continuous carbon fiber, wherein the initial continuous carbon fiber comprises single-wall carbon nanotubes in substantially parallel orientation.